

Cessna C182-RG training plan

This is a training plan for pilots transitioning to the C182-RG. Previous experience and qualification in the C182 is assumed, as is familiarity with a constant-speed propeller.

Preflight

- POH - required takeoff and landing distances, power and prop settings.
V_{so} is 37 Kts.
- Look at Chapter 7 of the POH for a brief overview of the gear and hydraulic system, along with the new limitations that come with it
- Switches and gauges - location and appearance may be different from other C182s.
- Oil dipstick is on the side of the cowling. Oil filler door is on the top.
- Discuss the "squat switch" on the landing gear.
- Carb sump drain release handle is next to oil dip stick - Not a fuel Injected engine - Similar to C172.
- Check Gear Down and Transition/Up lights - Press to test if not illuminated.
- Check the Electric Fuel Pump and Electric Vacuum Pumps by bumping the switches when the Master is on (Not on the checklist)
- Alternate Static air is beneath the instrument panel and is not well labeled.

Takeoff and climb

- Positive rate of climb and can no longer land on remaining runway - gear goes up.
- Gear lever up. Gently hold your fingers on the gear lever until cycle is complete.
(Pull out then up – don't hold the handle out or the green light may not come on.)
Because the gear makes its full transition in the slip stream you may feel the airplane pitch a bit as it comes up. (Very Minimal)
- Callouts:
 - "Out of usable runway. Gear up!"
 - "Gear in transit."
 - "Green light, no red - Gear is up."
 - Gear cycle (up or down) should take 5-7 seconds.
- 25" MP / 2500 RPM at 700 AGL.

Gear warning horn

- The horn comes on at less than 15 inches of manifold pressure, regardless of airspeed.
- This is only a warning - gear does not automatically drop.

Performance with gear down and full flaps

- Climb performance may be little or none.
- Retract gear and start raising flaps without delay in a go-around.
Flaps - gear - flaps – flaps. That's the process for go-around with full flaps.
- 40 degrees of flaps (full flaps) produces a lot of drag.
30° or 25° gives you lift to get off a short runway if needed so F G FF is what we recommend and teach.

Manual gear extension

- Select "Gear Down".
- Extend the handle and pump until cannot pump anymore (20-30 strokes).
- Ensure gear locks into place and green light is on.
- If another pilot is with you, consider having him/her fly while you work the handle.
- Cycle the gear normally after practicing this. (This is required, per the Wing DO.)

Landing

- Gear lever down on Downwind or pattern entry.
Gently hold your fingers on the gear lever until cycle is complete.
- Callouts:
 - "Gear in transit." 5-7 seconds before you will see a green light.
 - "Green light, no red - Gear is down."
 - "Two in the mirror, one in the window". Verify on both sides if able.
(Put your eyeballs on black rubber tires!)
- Re-confirm gear down on base and again on final.
- Full flaps - lots of drag. Sink rate may be higher than with other C182s.
Hold power (200-300 RPM above Idle at flare.)
- Land **gently** on the mains. Hold the nose wheel off as long as possible.
This airplane tends to have a nose wheel "shimmy" if too fast.
- No touch-and-go's in this airplane. (This is from the Wing DO.)

Simulated engine failure to a landing

- Sink rate may be higher than with other C182s.
- Don't expect to glide well. The prop is a huge airbrake. Glide at 80 Kts.
- A discussion on gear up or down for forced landings.

General thoughts

- Look at Chapter 7 of the POH for a brief overview of the gear and hydraulic system, along with the new limitations that come with it. It is only a few pages, but it gives a useful basic understanding of how it works. There may be some new terms such as 'squat switch' in it.
- Develop a personal memorized checklist. A good one is:
Tanks, cowl flaps, mixture, prop, throttle, carb heat, gear, booster, lights.
It WILL save you from a gear up landing. Quite useful in fixed-gear airplanes, too.
- "Worry about the gear."
- "You don't want to be the pilot who ruins our complex airplane with a gear-up landing."
- "Paranoia is your friend!"